

REMARKS/ARGUMENTS

These remarks are submitted in response to the Office Action of June 19, 2006 (hereinafter Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. Nonetheless, the Examiner is expressly authorized to charge any deficiencies or credit any overpayment to Deposit Account No. 50-0951.

In the Office Action, Claims 1-4, 6-12, and 14-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0076008 to Neary (hereinafter Neary), in view of U.S. Patent No. 5,940,472 to Newman, *et al.* (hereinafter Newman). Claims 5 and 13 were each rejected under 35 U.S.C. §103(a) as being unpatentable over Neary in view of Newman, and further in view of U.S. Patent Application Publication No. 2002/0077819 to Girardo (hereinafter Girardo). Additionally, Claims 4, 12, and 20 were rejected under 35 U.S.C. §112, first paragraph.

Applicants have amended independent Claims 1, 9, and 17 to further emphasize certain aspects of the invention. Applicants have cancelled Claims 4, 12, and 20. Applicants also have amended dependent Claims 5, 6, 13, and 14 to emphasize additional aspects of the invention and maintain consistency among each of the claims. The claim amendments, as discussed herein, are fully supported throughout the Specification. No new matter has been introduced through the claim amendments presented.

Applicants' Invention

At this juncture, it may be useful to reiterate certain aspects of Applicants' invention. One embodiment of the invention, as typified by amended Claim 1, is a

method of verifying the execution of programmatic actions in a voice response system. The method can include establishing a voice link between a test system and the voice response system, and then sending a primary signal to the test system over the voice link. The primary signal can indicate that at least one voice prompt is to follow. Since more than one voice prompt can follow the primary signal, the method further can include sending at least one secondary signal to the test system over the voice link when more than one voice prompt is to follow. (See, e.g., Specification, paragraph [0021], lines 3-5.) The one or more secondary signals can serve to distinguish one voice prompt from another if more than one voice prompt is to follow. Moreover, each secondary signal can be played between consecutively played voice prompts. (See, e.g., Specification, paragraph [0021], lines 7-11.) Each secondary signal can indicate either a beginning and an ending of a corresponding voice prompt, or the length of time for playing the voice prompt that is to follow. (See, e.g., Specification, paragraph [0021], lines 5-7.);

Additionally, the method can include determining at least one voice prompt to send along with execution instructions for testing the voice prompt, and sending the at least one voice prompt to the test system over the voice link. The method also can include sending a voice command from the test system to the voice response system in response to the at least one voice prompt. Within the voice response system, according to method, the voice response system can be tested with the voice command in accordance with the execution instructions so as to evaluate a programmatic action in response to the voice command.

The Claims Define Over The Prior Art

Independent Claims 1, 9, and 17, as noted already, were each rejected as unpatentable over Neary in view of Newman. Neary is directed to a method and apparatus for verifying the content of voice "utterances" and evaluating the "call flow

performance" of an interactive audio system. (Paragraph [0004]; see also paragraph [0014], and Abstract, lines 1-9.) Newman is directed to an automated system for testing telecommunications networks that include "intelligent network elements" such as automated response units, as well as manual network elements, such as manual operator consoles. (See, e.g., Col. 2, lines 19-26; see also Abstract.)

It is noted at pages 3-4 of the Office Action that Neary, though teaching an IVR system capable of processing voice-based and dual-tone, multi-frequency (DTMF) inputs, nevertheless fails to disclose caller responses comprising voice prompts or DTMF tones, as in Applicants' invention. It is stated, however, that these features are found in Newman.

Newman provides for the generation of "voice responses" to an automatic response unit (ARU) during a test call. Newman's generation of voice responses is described in portions of the reference cited in the Office Action:

"[A] sound generator 150 is used to generate voice response to ARUs during test calls. For example the controller 100 directs the sound generator 150 to utter "hello" when a 1-800-COLLECT.RTM. call is answered by the terminating SAGE 110. Similarly, the controller 100 can direct the sound generator 150 to say a name in response to the ARU's vocal request to "state your name." (Col. 7, lines 25-32.)

Elsewhere, Newman provides:

"[If for] example, the particular [automated] service under test is an operator assisted 1-800-COLLECT.RTM. call service. Once the test call is

set up, a voice connection is established between the originating SAGE 112 and the MOC 108. Note that even for out-of-band test calls, the SAGE 112 may still be used to provide input over the voice channel. For example, a test call to an automated collect call service within the ARU 106 may require input over the voice channel. Such input is typically in the form of one or more Dual Tone Multi-Frequency (DTMF) signals and/or voice responses." (Col. 8, lines, 58-66.)

The quoted language reveals that, during system testing, Newman provides only voice responses. Nowhere does Newman teach or suggest sending a primary signal that indicates when a voice response or prompt is to follow, as recited in each of the amended independent claims. Likewise, Newman does not teach or suggest sending at least one secondary signal if more than one voice response or prompt is to follow, as further recited in each of the amended independent claims.

More fundamentally, Newman fails to teach or suggest the sending any type of signal that indicates a beginning and an ending or a time length of a corresponding voice prompt that is to follow, as also explicitly recited in amended Claims 1, 9, and 17. Thus, Newman additionally fails to teach or suggest that such signals are sent or played between consecutively played voice prompts, as further recited in amended Claims 1, 9, and 17.

Neary is cited at page 3 of the Office Action as sending a "coded signal" indicating that a voice prompt is to follow. Applicants respectfully submit, however, that Neary's coded signals do not indicate when a voice prompt is to follow. Instead, as explicitly described in the reference, Neary's coded signals represent the *content* of the voice prompt itself. Firstly, Neary describes "prompt signals," not voice prompts. Secondly, Neary's prompt signals do not precede voice prompts so as to indicate when voice

prompts are to follow. Neary's voice prompts represent the content of voice "utterances" themselves in a coded format and are included in the voice prompts along with the utterances. A prompt signal of the kind taught by Neary thus does not precede a voice prompt, and thus logically, the prompt signals in Neary cannot indicate when a voice prompt is to follow. This is explicitly described in portions cited in the Office Action:

"To enable call-flow verification, [the] IVR unit 10 has call-flow verification (CFV) apparatus including circuits 30 and 32 shown in FIG. 3. Circuit 30 is an encoding circuit utilized to provide coded signals representative of content of utterances in coded format for inclusion in prompt signals sent by IVR system 10. Circuit 32 is an activation circuit to control activation and deactivation of encoding circuit 30. Activation circuit 32 also controls whether, during call-flow verification, prompt signals sent by IVR system 10 include or exclude the actual utterances whose content is represented by the coded signals, as well as how many characters of an utterance label are represented by the coded signals." (Paragraph [0020].)

As described in this and other portions cited in the Office Action, Neary's prompt signals comprise encoded content representative of an utterance. Neary's prompt signals can also comprise "parameters." But these parameters indicate, respectively, a "framing" and "extent" of a particular prompt signal; they have nothing to do with indicating when a voice prompt is to follow. This is revealed in the portions of Neary cited in the Office Action:

"FIG. 4 illustrates prompt signals including coded signals (DTMF signals) for the one-word utterance "one". In this example, the second parameter, or the "framing" parameter, is set for inclusion of the actual utterance. The third parameter, or the "extent" parameter, is set for five characters. In this example, as illustrated in FIG. 4, for call-flow verification the prompt signals transmitted by IVR system 10 consist of the actual utterance "one" preceded by DTMF signals representing the letters "o", "n", "e" in ASCII format (i.e., representing the decimal equivalents thereof) and followed by the same DTMF signal content again representing each letter of the utterance label "one". In the present coding protocol, setting the extent parameter to "5" provides for encoding of the first five characters of an utterance label in a leading series of DTMF signals and the last five characters in a trailing series of DTMF signals. Here, since the utterance label includes only three characters, all three characters are represented in both the leading and trailing coding." (Paragraph [0030].) (Emphasis Supplied.)

"FIG. 5 illustrates prompt signals provided for call-flow verification regarding the utterance "Press one for date". Again, the framing parameter is set for inclusion of the actual utterance and the extent parameter is set for five characters. As shown, the leading series of DTMF signals represents the five letters of "press" and the trailing DTMF signals represent the five characters "space", "d", "a", "t", "e". For this purpose, the space between words is treated as a character and represented by appropriate ASCII coding." (Paragraph [0031].) (Emphasis Supplied.)

"FIG. 7 provides a simplified example of transmissions between ACG unit 16 and IVR system 10 during the course of a simulated user call for call-flow verification purposes. To the left in FIG. 7 there is represented performance of an application program executed on IVR system 10 and programmed to provide utterances responsive to the user call. In operation of the application program the appropriate utterances are identified for retrieval, synthesis, etc., by utterance labels as discussed above. These utterance labels are thus available for use in encoding selected characters or all characters of a specific utterance label in coded form for inclusion in a prompt signal transmitted by VPS system 10." (Paragraph [0033].)

"As will be seen, starting at the top of FIG. 7 and proceeding item by item downward, ACG unit 16 first dials a call to IVR system 10 and then provides a CFV sequence code (in the form of DTMF signals) effective in this example (i) to activate the CFV mode of operation of IVR system 10, (ii) to indicate that the actual utterances are to be included in the prompt signals and (iii) to set the extent parameter to two characters. Accordingly, after the application identifies the utterances "Press one for date" and "Press two for money" IVR system 10 sends a prompt signal shown on successive lines of FIG. 7 as: DTMF signals representing "p" and "r"; the actual utterance "Press one for date"; DTMF signals representing "t" and "e"; DTMF signals representing "p" and "r"; the actual utterance "Press two for money"; and DTMF signals representing "e" and "y". This composite prompt signal including two utterances and 24 DTMF signals representing content of the utterance in coded form (identified in FIG. 7 as prompt signals "A") is received and stored by ACG unit 16." (Paragraph [0034].) (Emphasis Supplied.)

The quoted language of the reference explicitly reveals that Neary's prompt signals are not at all comparable to either the primary or secondary signals provided by Applicants' invention. As described in the above-quoted portions, Neary's signal prompts code rather than precede voice utterances. Neary's signal prompts do not indicate that a particular voice prompt is to follow. Indeed, as explicitly described in Neary, the prompt signal includes both the utterance and the encoded representation of the utterance.

It follows, therefore, that it is impossible for Neary's prompt signals to possess any of the other characteristics of Applicants' secondary signals. Specifically, Neary's prompt signals indicate neither a beginning nor an ending of a corresponding voice prompt, as recited in amended Claims 1, 9, and 17. They do not indicate a time length for playing a corresponding voice prompt that is to follow, as also recited in amended Claims 1, 9, and 17. Moreover, it is impossible for Neary's voice prompts, because they encode and accompany a voice utterance, to be sent between consecutively played voice prompts, as further recited in Claims 1, 9, and 17.

Accordingly, even when combined, neither Neary nor Newman teaches or suggests every feature recited in amended Claims 1, 9, and 17. Applicants respectfully submit, therefore, that Claims 1, 9, and 17 define over the prior art. Applicants further respectfully submit that whereas each of the remaining dependent claims depends from one of the amended independent claims, the dependent claims likewise define over the prior art.

CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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